

ABSTRACT

An exception handler for a processor is split into two functional units to permit exceptions to be classified into two categories. The first category of exceptions includes performance critical excepted instructions, while the second category includes non-performance critical excepted instructions. The performance critical exceptions are routed to a speculative exception handler, which resolves the exceptions speculatively, even though the excepted instruction may lie in a speculative path of the program flow. The non-performance critical exceptions are routed to a non-speculative exception handler that only resolves exceptions when the excepted instruction is certain to execute in an actual path of the program flow.

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